

ABSTRACT

A GPS receiver system determines the presence of trackable signals at code delays less than the prompt delay being tracked for a particular signal and changes the prompt delay to correspond to the smallest code delay having a trackable signal. Trackable signals at large code delays are multipath signals and may be separately tracked to aid in dead reckoning. The  
5 trackable signals at code delays not adjacent to the current tracked prompt delay may be tracked in the same channel as the prompt delay so that all satellite channels are continuously evaluated for multipath signals being tracked or a non-satellite specific channel may be used to sequentially step through the satellite signals to evaluate multipath on a satellite by satellite basis.